

Amendments to the Claims

1. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue, comprising a power supply and a source of electromagnetic radiation contained in the device, the source made in the form of an incandescent lamp, a reflector for concentrating the radiation onto the biological tissue to be processed, a transparent dielectric in the form of a waveguide connected to a cooling system and adapted to be in contact with the biological tissue to be processed, as well as a spectral filter, *characterized by* the fact that the incandescent lamp is connected to the power supply through a modulator, which comprises a resistometer of the incandescent filament of the lamp and a power regulator, and an inner surface of the reflector consists of a mirror surface made with an additional function of returning radiation reflected from the biological tissue being processed back to the biological tissue.
2. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the spectral filter may be made in the form of an absorbent filter.
3. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the spectral filter may be made in the form of a fluorescent converter.
4. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the spectral filter may be made in the form of the reflective coating of the reflector.
5. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the transparent dielectric is located in a metal mount, fixed inside the device, to one side of which a metal plate, connected to a cooling system, is tightly joined in contact with biological tissue.
6. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that a radiation-absorbent filter is

made in a form that together with the dielectric forms an optical wave guide with a sandwich structure consisting of a fluorescent converter, a coolant nonfreezing liquid, and an optical thermal insulator.

7. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the region of the inner surface of the reflector located above the incandescent lamp is shaped as a part of an ellipsoid or a sphere with a center of curvature in the center of a facet of the waveguide which is nearest to the lamp, and the region of the inner surface of the reflector located between the incandescent lamp and the facet is inclined to the latter at an obtuse angle.

8. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 7, *characterized by* the fact that the region of the inner surface of the reflector located between the incandescent lamp and the facet of the waveguide closest to it consists of a lateral surface of a frustum of a cone or a right tetrahedral pyramid whose minor base is the facet, and a dihedral angle between it and the lateral surface or the facet is between 115° and 120°.

9. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the reflector and the transparent dielectric are made of two halves with a common axis of rotation, the incandescent lamp is located on the inner side of one of the halves of the reflector, and each of the halves of the transparent dielectric may be made with the function of spectral filter and mounted on the corresponding half of the reflector so as to permit placement of biological tissue between the halves of the dielectric with the halves of the reflector in a closed position.

10. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 9, *characterized by* the fact that the inner surface of reflector with its halves in the closed position constitutes an ellipsoid of revolution, a coil of incandescent filament of the lamp is located at one of its foci and an axis of the lamp is oriented along the major axis of the ellipsoid, the halves of the transparent dielectric are made in a form of sphere segments with bases parallel to the major axis of the ellipsoid and to the axis of

rotation of the halves of the reflector, the sphere segments are mounted on the halves of the reflector so that their common center coincides with a second focus of the ellipsoid and with the biological tissue located between the sphere segments.

11. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 9, *characterized by* the fact that the inner surface of the reflector with its halves in the closed position constitutes the surface of an elliptical cylinder whose generatrix is parallel to the axis of rotation of the halves of the reflector, the coil of the incandescent filament of the lamp is located at the level of one focus of the ellipse, an axis of the lamp is aligned parallel to the generatrix of the elliptical cylinder, and the halves of transparent dielectric are made in a form of halves of cylinder mounted on the halves of the reflector so that the axes of the cylinder coincide with the biological tissue located between its halves and the orientation of the generatrix of cylinder of the dielectric coincides with the orientation of the axis of the coil of the incandescent filament.

12. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 9, *characterized by* the fact that the inner surface of the reflector with its halves in the closed position constitutes the surface of an elliptical cylinder whose generatrix is parallel to the axis of rotation of the halves of the reflector, the coil of the incandescent filament of the lamp is located at the level of one focus of the ellipse, an axis of the lamp is aligned parallel to the generatrix of the cylinder, and the halves of the transparent dielectric are made in a form of right prisms with irregular polygons in their bases, oriented with their lateral edges parallel to the axis of rotation of the reflector, and the prisms are mounted so that the focal axis of the elliptical cylinder coincides with the biological tissue located between the prisms.

13. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 4, *characterized by* the fact that the reflective surface of the reflector is made of material that selectively reflects the radiation with a wavelength between about 600 and 2500 nm.

14. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the number of incandescent lamps or the number of incandescent filaments in one lamp may be greater than one, and the incandescent filaments may be flat.

15. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 9, *characterized by* the fact that a coolant nonfreezing liquid additionally possesses the qualities of absorbing radiation or re-emitting radiation in a different part of the spectrum and is placed in a tube connected to a pressurizing pump.

16. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that a space within the reflector is connected via an air line to an air compressor.

17. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that a cooling system of the transparent dielectric and the metal plate may contain Peltier elements.

18. (Previously presented) Device for therapeutic and cosmetological photo processing of biological tissue per claim 3, *characterized by* the fact that a fluorescent converter and an optical thermal insulator forming the sandwich structure are made of ruby or sapphire with titanium and optical glass, including quartz glass, respectively.

19. (Previously presented) Device for therapeutic and cosmetological photo processing of biological tissue per claim 1, *characterized by* the fact that it is additionally fitted with a system for water or air cooling of the device.

20. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 3, *characterized by* the fact that a bulb of the incandescent lamp and/or a tube surrounding the bulb are additionally made with the function of a fluorescent converter.

21. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the incandescent filament of the lamp constitutes a flat emitter whose plane is parallel to a plane of the biological tissue to be processed, and a part of the inner surface of the reflector located above the lamp is at a distance no less than $1.2d$ from a waveguide facet nearest to the lamp, where d is the outer diameter of a bulb of the incandescent lamp.

22. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that a radiation-absorbing filter is made in the form of a sandwich structure with the function of the waveguide for radiation from the lamp to biological tissue and back and formed, in a direction perpendicular to the surface of the biological tissue, of a frustum of a tetrahedral pyramid made of a transparent material with an index of refraction no less than 1.76 whose major base faces the lamp, water at a temperature of 1°C to 10°C , and a cubical transparent dielectric in contact with the biological tissue and formed, in a direction parallel to the surface of the biological tissue, of the same frustum of a tetrahedral pyramid, water at a temperature of 1°C to 10°C , and an inner surface of a reflectively coated tip.

23. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the transparent dielectric is located in a metal mount equipped with a cooling system employing liquid at a temperature of -1°C to -18°C .

24. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that it is additionally equipped with a feedback system whose circuit incorporates a patient pain threshold sensor, an incandescent filament of the lamp, and a power supply.

25. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that it is additionally equipped with a light interrupter controlled by the patient's pain threshold or by a pain sensor in the form of an iris sensor or a blood flow sensor.

26. (Previously presented) Device for therapeutic and cosmetological photoprocessing of biological tissue per claim 1, *characterized by* the fact that the power supply is equipped with a battery.

27-31. (Canceled)